
Monograph number: 9910.

Title: Tropic Acid.

CAS Registry number: [529-64-6]

CAS name(s): α -(Hydroxymethyl)benzeneacetic acid;

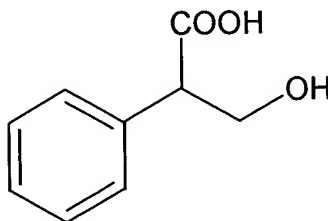
Additional name(s): 2-phenylhydracrylic acid; α -phenyl- β -hydroxypropionic acid; tropaic acid; tropeic acid.

Molecular formula: $C_9H_{10}O_3$;

Molecular weight: 166.18.

Percent Composition: C 65.05%, H 6.07%, O 28.88%.

Literature references: Degradation product of tropane alkaloids, esp atropine: Lossen, *Ann.* **133**, 351, 370 (1865). Resolution of isomers: McKenzie, Wood, *J. Chem. Soc.* **115**, 828 (1919). Absolute config of isomers: Fodor, Csepregthy, *ibid.* **1961**, 3222; Watson, Youngson, *J. Chem. Soc. Perkin Trans. I* **1972**, 1597. Prepn: Slettinger, Paulsen, U.S. pat. **2,390,278** (1945 to Merck & Co.); Blicke, U.S. pat. **2,716,650** (1955 to U. of Michigan); Ger. pat. **923,426** (1955 to Sterling Drug). Biosynthetic studies: Louden, Leete, *J. Am. Chem. Soc.* **84**, 1510, 4507 (1962).



Derivative: (\pm)-Form,

Properties: needles or plates from water or benzene, mp 118° . K at $25^\circ = 7.5 \times 10^{-5}$. Absorption spectrum: Dobbie, Fox, *J. Chem. Soc.* **103**, 1194 (1913). 1 gram dissolves in 50 ml water; freely sol in boiling water; sol in alcohol, ether, slightly in benzene; practically insol in petr ether.

Melting Point: mp 118°

Derivative: (+)-Form,

Properties: mp 107° . $[\alpha]_D^{20} +72^\circ$ (c = 0.5 in water).

Melting Point: mp 107°

Rotation: $+72^\circ$

Properties: mp 126-128° . $[\alpha]_{\text{D}}^{20} -72^{\circ}$ (c = 0.5 in water) .

Melting Point: mp 126-128°

Rotation: -72°

Derivative: (-)-Form,